

REMARKS

Claims 1, 4, 6-9, 17 and 20 have been amended. Claims 2 and 3 have been canceled, and their subject matter incorporated into claim 1. Thus, claims 1 and 4-22 are now pending. Support for the amendment to claim 1 may be found in original claims 2 and 3, and support for the amendment to claims 17 and 20 may be found in original claim 9. The other claim amendments change the dependency from canceled claims to claim 1. No new matter has been added. Reconsideration and withdrawal of the present rejections in view of the amendments and comments presented herein are respectfully requested.

Allowable subject matter

The Examiner stated that claims 17-22 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, since Fujimori does not teach or suggest presently required magnetic film of claims 17 and 20 (see Office Action at page 3, item 3). Claims 17 and 20 as amended are independent claims that include all of the limitations of the base claim and any intervening claims. Thus, claims 17 and 20, as well as claims 18, 19, 21 and 22 that are dependent thereon, should now be allowable.

Rejection under 35 U.S.C. §102(b)

Claims 1-16 were rejected under 35 U.S.C. §102(b) as being anticipated by Fujimori et al. (JP2001-142214 and the machine-assisted English translation of the Japanese document as provided by JPO). Claims 2 and 3 have been canceled, thus rendering the rejection moot as it applies to these claims. The rejection will be addressed as it relates to pending claims 1 and 4-16.

In order for a claim to be anticipated by a reference, the reference must disclose every element of the claim. Claims 1 and 9 as amended recite both a diazomethane-based acid generator (B1), and an onium salt-based acid generator (B2) wherein the weight ratio of B1 to B2 is within a range of 1:1 to 1:10. Fujimori et al. do not disclose or suggest such a weight ratio. Thus, the claims cannot be anticipated by this reference.

In addition, the claims are not obvious in view of this reference because of the unexpected advantages that are obtained when a diazomethane-based acid generator (B1), and an onium salt-based acid generator (B2) are used, and when the specific weight ratio of these two is used.

The resin recited in claims 1 and 9 provides improved resolution, and enables the formation of a resist pattern of favorable shape, by suppressing problems such as the so-called tailing phenomenon, in which the lower portions of the resist pattern become tapered, or the so-called undercutting phenomenon, in which undercutting of the inside of the pattern occurs. Suppression of these problems is obtained, in part, by using both a diazomethane-based acid generator (B1) and an onium salt-based acid generator (B2) as the component (B). The use of both (B1) and (B2) enhances the level of improvement in the resolution, and the ability to obtain a favorable resist pattern shape (see present specification at page 12, lines 23-25). In addition, Claims 1 and 9 recite that the weight ratio (B1):(B2) is within a range from 1:1 to 10:1. By using (B1) and (B2) in the above range, a mixture thereof has a favorable balance is obtained (see specification at page 14, line 11 to page 15, line 6).

In addition, the present inventions of Claims 1 and 9 disclose that the component (B1) is particularly effective in improving the so-called tailing phenomenon (the present specification: page 14, lines 13 to 14), and the component (B2) is particularly effective in improving the so-called undercutting phenomenon (the present specification: page 15, lines 1 to 2). These effects can be seen in the comparative examples of the present application. Namely, Comparative Example 4 shows the occurrence of the tailing phenomenon when the component (B1) is not used for producing a positive resist composition. Comparative Example 5 shows the occurrence of undercutting, deterioration in the shape, and the presence of pattern collapse when the component (B2) is not used for producing a positive resist composition (see present specification: page 29, lines 4 to 15).

Although Fujimori states that a mixture of multiple photoacid generators can be used, none of the Examples in Fujimori combine a diazomethane-based acid generator and an onium salt-based acid generator. Thus, the unexpected advantages of the specific photoacid generator mixtures recited in the present claims are neither taught nor suggested by this reference. Thus, nothing in this reference lead one of ordinary skill in the art to expect the advantageous results achieved by the presently claimed invention. In view of these unexpected results, the presently pending claims are believed to be allowable over the Fujimori reference.

CONCLUSION

In view of the amendments and comments provided above, Applicant submits that all claims are in condition for immediate allowance. If minor matters remain that could be resolved by teleconference, the Examiner is invited to contact the undersigned at the number provided below.

No fees are believed due in connection with this Amendment. However, please charge any fees to Deposit Account No. 11-1410.

Respectfully submitted,

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